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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,168	12/23/2005	Toru Takenaka	SAT-16280	7708
40854 7590 06/09/2010 RANKIN, HILL & CLARK LLP 38210 GLENN AVENUE WILLOUGHBY, OH 44094-7808				
EXAMINER MOYER, DALE S				
ART UNIT 3664		PAPER NUMBER		
NOTIFICATION DATE 06/09/2010		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/562,168

**Applicant(s)**

TAKENAKA ET AL.

**Examiner**

Dale Moyer

**Art Unit**

3664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/CD)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Status of the Application***

1. This non final office action is in response to the applicants' response, received by the United States Patent and Trademark Office on 04 February 2010.
2. Claims 1-79 have been presented in the application, of which, claims 20-79 are cancelled, claims 1,4,6,8,10,13 and 15-16 were previously amended, and claims 2-3, 5, 7, 9, 11-12, 14 and 17-19 are original. Accordingly, pending claims 1-19 are addressed herein.

### ***Response to Arguments***

3. In response to the terminal disclaimer filed 04 February 2010, the provisional obvious type double patenting rejection has been withdrawn.
4. Applicant's arguments with respect to the anticipation rejection claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.
5. The applicants' arguments with respect to the obviousness rejection of claims 13-19 have been fully considered but are moot in view of the new ground(s) of rejection.

### ***Specification***

6. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification does not provide antecedent support for the claim term "actual state amount."

### ***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**In regards to claims 1, 6 and 10:**

a. The claim limitation "permissible range setting means for setting a permissible range of a restriction object amount" is a means plus function limitation that invokes 35 U.S.C. § 112, sixth paragraph. However, the invoking language "means for" is preceded by the words "permissible range setting." The recitation of "permissible range setting" before the invoking language "means for" renders the claim indefinite because it is unclear whether the recited structure, material, or acts are sufficient for performing the claimed function, which would preclude application of 35 U.S.C. 112, sixth paragraph.

If applicant wishes to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant is required to amend the claim so that the phrase "means for" or "step for" is clearly not modified by sufficient structure, material, or acts for performing the claimed function.

If applicant does not wish to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant is required to amend the claim so that it will clearly not be a means (or step) plus function limitation (e.g., deleting the phrase "means for" or "step for"). See MPEP 2181(I)(C).

b. The recitation "desired instantaneous value determining means for determining, on the basis of at least a difference between a desired state amount related to a posture of the robot about a vertical axis or about a floor surface normal line axis and an actual state amount of the robot and the permissible range, instantaneous values of the desired motion and the desired floor reaction force such that a deviation between a floor reaction force moment balancing with the desired motion on the dynamic model and a floor reaction force moment of the desired floor reaction force approximates the difference to zero, while having the restriction object amount, which is associated with the desired floor reaction force, fall within the permissible range" renders the claim indefinite. That is, it is unclear whether the instantaneous values can be determined on the basis of a difference between: i) a desired state amount and an actual state amount, or ii) a desired state amount and an actual state amount and the permissible range or iii) some other combination.

Further, it is unclear whether only the instantaneous values of the desired motion are to be based on the at least a difference, or if both the instantaneous values of the desired motion and the desired floor reaction force are to be based on the at least a difference.

c. The claim limitation "desired instantaneous value determining means for determining [...] instantaneous values" is a means plus function limitation that invokes 35 U.S.C. § 112, sixth paragraph. However, the invoking language "means for" is preceded by the words "desired instantaneous value determining." Such a recitation of "desired instantaneous value determining" before the invoking language "means for"

renders the claim indefinite because it is unclear whether the recited structure, material, or acts are sufficient for performing the claimed function, which would preclude application of 35 U.S.C. 112, sixth paragraph.

If applicant wishes to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant is required to amend the claim so that the phrase "means for" or "step for" is clearly not modified by sufficient structure, material, or acts for performing the claimed function.

If applicant does not wish to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant is required to amend the claim so that it will clearly not be a means (or step) plus function limitation (*e.g.*, deleting the phrase "means for" or "step for"). See MPEP 2181(I)(C).

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Takenaka et al. (Patent Cooperation Treaty Publication WO03/090981).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dale Moyer whose telephone number is (571)270-7821.

The examiner can normally be reached on Monday through Thursday from 10AM to 4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi H. Tran can be reached on (571)272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dale Moyer/  
Examiner, Art Unit 3664  
/KHOI TRAN/  
Supervisory Patent Examiner, Art Unit 3664